

AMENDMENT AND RESPONSE AND SUMMARY OF PERSONAL INTERVIEW WITH THE EXAMINER

Ser No. 10/666,573

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REMARKS

**Summary of Personal Interview With the Examiner**

On January 21, 2005, Examiner Umakant Rajguru and the Applicants' representative, Andrew Merriam, conducted a personal interview to further prosecution in the instant application. The Applicants wish to thank Examiner Rajguru for extending the courtesy of a personal interview.

During the interview, the parties discussed the various art rejections, with Mr. Merriam distinguishing the art from the instant claims. At the outset, Mr. Merriam explained that the instantly recited composition finds use, among other things, as a powder coating.

In the powder composition instantly recited in claim 14, all recited ingredients are mixed via extrusion sufficiently to bond them with the binder or binders, followed by grinding. See the instant specification at, for example, page 6, lines 16-19 and page 8, lines 1-4. In the resulting product, each of the ingredient particles is randomly bonded to binder and any of the other particles. See, for example, U.S. Patent no. 5,856,378, at Fig. 1 (electron micrograph of a powder coating composition), col. 6, lines 46-47, and col. 1, lines 19-25 (process for forming powder coatings).

Regarding EP 924166, to Chisso (referred to in the Office Action as Wang), as the rejection admits, Chisso fails to disclose any oxygenated heterocyclic thermoplastic resin, as is instantly recited in instant claim 1. In addition, Chisso fails to disclose a powder composition which would result from mixing, extruding and grinding each of the ingredients, as is instantly recited in instant claim 14.

Regarding Chisso in view of Marx, both of record, neither of the references nor any combination of them discloses any oxygenated heterocyclic thermoplastic resin. Further, Chisso and Marx each fails to teach or suggest thermoplastic resins which comprise groups reactive with phosphoric acids. As

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each feature of the instant claims is not met by the combination of Chisso and Marx, the rejection is improper. See MPEP 2143.03.

Regarding Chisso in view of Roth et al., both of record, these references are not properly combinable because the resins of Roth et al. would be expected to fail when used to make the useful materials of Chisso. In fact, Chisso encapsulates flame retardant materials coats with polymerizable double bond-containing thermoplastic resins to make them water resistant and solvent resistant (see page 2 at lines 19-24 and 47-55, especially lines 47-49). To the contrary, the Roth et al. interpolymer ingredients comprise hygroscopic sulfonamide functional repeat units in at least half of the amine units in the interpolymers (col. 1, line 37-51) and the interpolymers have low molecular weights (350-2,000, at col. 1, line 56-57). The Roth et al. interpolymer ingredients dissolve in water miscible solvents (see col. 3, lines 43: solution in Dimethyl sulfoxide - Example II, dimethylformamide in Example IV, and methoxyethanol in Example V). Accordingly, the interpolymer resins used in Roth et al. are unsuitable as water resistant and solvent resistant encapsulating resins as taught in Chisso, and would thereby destroy the operability of the compositions of Chisso. The combination of Chisso and Roth et al. is improper. See *In re Gordon*, 733 F.2d 900, and MPEP 2143.01 re: "Cannot Render the ...Art Unsatisfactory for its Intended Purpose."

Regarding Chisso in view of Nugent, Jr. et al., neither of the references nor any combination of them discloses any oxygenated heterocyclic thermoplastic resin or any powder coating composition which would result from mixing, extruding and grinding each of the ingredients. In fact, Nugent, Jr. et al. discloses a trowelable mastic or solvent borne coating at column 8, line 66 to column 9, line 5. Such wetted or paste materials could not be sprayed or stored as powders and would thus be unsatisfactory as powder coatings.

Regarding Chisso in view of Von Bonin et al., neither of the references nor any combination of them discloses any oxygenated heterocyclic thermoplastic resin. Further, Chisso fails to disclose or suggest a powder composition which

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would result from mixing, extruding and grinding each of the ingredients. Still further, Von Bonin fails to disclose thermoplastic resins which contain groups reactive with phosphoric acid, as instantly recited. Yet still further, Von Bonin et al. fail to teach or suggest any powder materials suitable for use as a powder coating, as the materials disclosed contain moisture and would not be storage stable as a powder coating (see col. 5, lines 26-34 - moisture present and desired; see column 8, lines 15-22 and 35-45 used as spreadable pastes and liquid coatings).

Examiner Rajguru mentioned an indefiniteness rejection regarding the phrase "active groups" in claim 1. Mr. Merriam replied that the meaning of the phrase "active groups" was reasonably clear and definite. The instant claims define the active groups of the thermosetting and thermoplastic binders as conferring charring and blowing function to the composition. See claims 1 and 14. Clearly, the ordinary skilled artisan would understand that the charring and blowing of the resins results from reaction of the binders with phosphoric acid. See the instant specification at, for example, page 4, lines 15-21.

Mr. Merriam presented the Examiner with a copy of Ward et al., U.S. 4,529,467, which is cumulative with the Nugent, Jr. et al. reference, U.S. 5,108,832.

**Support for the Amendments to the Specification**

The present amendment to the specification at pages 5 and 7 seeks solely to recite trademarks correctly. Also, an amendment on page 5 seeks to correct a spelling error (diglycydyl).

In addition, the amendments seek to correct an obvious technical error in the instant specification at pages 5 and 7 :

Whereas, in the specification as filed, LAROPAL™ A 81 was mistakenly referred to as a ketone resin at pages 5 AND 7 (see the instant specification, as originally filed, at page 5, paragraph (d)) and 7 (see the Table), subsequent to filing the Applicants have discovered that the LAROPAL™ A 81 resin used in the Examples is actually an aldehyde

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resin. As evidence of the error in the instant specification, the Applicants submit herewith copies of the June, 1996 BASF Technical Information "Laropal™ A 81" and "Laropal™ A 101".

The amendment to the instant specification at page 7, lines 7-8 seeks merely to insure consistency and correctness in the antecedent basis for the aldehyde resins discussed in the specification.

**Support for the Amendments to the Claims**

The amendment to instant claim 1 seeks solely to better define the thermoplastic binder of the instant invention and finds support, for example, in the instant specification at page 3, lines 24-25.

The amendment to instant claims 1 and 14 regarding the phrase "active groups" seeks solely to avoid any indefiniteness issue. Support for this amendment may be found in the instant specification at, for example, page 2, lines 13-20 and at page 4, lines 15-30.

The amendment to the instant claim 5 merely seeks to include epoxy resin in the various claimed embodiments of the instant invention. Support for this amendment may be found in the instant specification at, for example, page 3, lines 21-22.

The amendment to claim 8 seeks solely to insure proper claim dependency.

The amendment to the preamble and the end of instant claim 14 ("further wherein...") seeks to better define the instant invention as a preferred powder coating composition. Support for this amendment may be found in the instant specification at, for example, page 6, lines 16-19, and at page 8, lines 1-4.

The amendment to the preamble of claims 15, 16, 17 and 18 seeks solely to insure consistency in antecedent basis.

Claims 7 and 19 have been canceled. The total number of claims has been reduced by 2.

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Upon entry of the present amendment, claims 1-6, and 8-18 will stand pending in the instant application. No new matter has been added by the present amendment.

**Rejections Under 35 USC §112, 2d paragraph**

Claim 1 stands rejected under 35 USC §112, 2d paragraph, as indefinite in regard to the phrase "active groups". Applicants respectfully traverse this rejection.

It is well settled that the definiteness of claim language employed must be analyzed not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. *In re Moore*, 58 C.C.P.A. 1042, 439 F.2d 1232, 1235, 169 U.S.P.Q. (BNA) 236, 238 (CCPA 1971). In the instant case, the claims 1 and 14 define the "active groups" of the thermosetting and thermoplastic binders as conferring charring and blowing function to the composition. Further, the charring and blowing of the resins results from reaction of the binders with phosphoric acid. See the instant specification at, for example, page 4, lines 15-21. Clearly, active groups refer to those which react with phosphoric acid. The rejection is thus improper.

Nevertheless, without acceding to the correctness of the position taken in the rejection, and to avoid indefiniteness issues, the Applicants have inserted language into the instant claims specifying that the groups in the binders that confer charring and blowing functions are those that react with phosphoric acid. The rejection has thus been rendered moot.

Applicants respectfully request the withdrawal of all indefiniteness rejections.

**Rejections Under 35 USC §102(b)**

Claims 1-5 and 14-16 stand rejected under 35 USC section 102(b) as being anticipated by Chisso. The Applicants respectfully traverse these rejections.

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Chisso fails to disclose any oxygenated heterocyclic thermoplastic resin, as is instantly recited in instant claim 1. In addition, Chisso fails to disclose a powder coating composition which would result from mixing, extruding and grinding each of the ingredients, as is instantly recited in instant claim 14. Further, Chisso fails to disclose a phenolic curing agent, as instantly recited in claim 6; and Chisso fails to disclose a melt viscosity modifier, a coloring agent, china clay, melamine phosphate, or a vitrifier, as each is instantly claimed. As each feature of the instant claims is not taught in Chisso, the rejection is improper. 35 U.S.C. section 102(b).

The Applicants respectfully request the reconsideration and the withdrawal of all novelty rejections.

**Rejections Under 35 USC §103(a)**

Claims 1-5 and 14-16 stand rejected under 35 USC section 103(a) as being obvious over Chisso. The Applicants respectfully traverse these rejections.

Chisso fails to teach or suggest any oxygenated heterocyclic thermoplastic resin, as is instantly recited in instant claim 1. In addition, Chisso fails to teach or suggest a powder coating composition which would result from mixing, extruding and grinding each of the ingredients, as is instantly recited in instant claim 14. In fact, Chisso teaches away from such a powder coating composition, as such would not be provide encapsulation by the thermoplastic resin. See Chisso at paragraph [0006] and contrast powder coatings made by mixing, extrusion and grinding in U.S. Patent no. 5,856,378, at Fig. 1 (electron micrograph of a powder coating composition), col. 6, lines 46-47, and col. 1, lines 19-25.

Further, Chisso fails to teach or suggest a phenolic curing agent, as instantly recited in claim 6; and Chisso fails to teach or suggest a melt viscosity modifier, a coloring agent, china clay, melamine phosphate, or a vitrifier, as each is instantly claimed. As each feature of the instant claims is not taught or suggested in Chisso, the rejection is improper. See MPEP 2143.03.

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The Applicants respectfully request the reconsideration and the withdrawal of all obviousness rejections over Chisso.

Claim 6 stands rejected under 35 USC section 103(a) as being obvious over Chisso in view of Marx. The Applicants respectfully traverse these rejections.

Regarding Chisso in view of Marx, neither of the references nor any combination of them discloses any oxygenated heterocyclic thermoplastic resin. Further, Chisso and Marx each fails to teach or suggest thermoplastic resins which comprise groups reactive with phosphoric acids. As each feature of the instant claims is not met by the combination of Chisso and Marx, the rejection is improper. See MPEP 2143.03. Accordingly, the Applicants respectfully request the reconsideration and the withdrawal of all of the rejections.

Claims 7, 8 and 17-18 stand rejected under 35 USC section 103(a) as being obvious over Chisso in view of Roth et al. The Applicants respectfully traverse these rejections.

Regarding Chisso in view of Roth et al., both of record, these references are not properly combinable because the resins of Roth et al. would be expected to fail when used as combined to make useful materials in Chisso. See the Summary Of Personal Interview With The Examiner, at page 8, above. The interpolymer resins as used in Roth et al. are unsuitable as water resistant and solvent resistant encapsulating resins, and would thereby destroy the operability of the compositions of Chisso. The combination of Chisso and Roth et al. is improper. See *In re Gorden*, 733 F.2d 900, and MPEP 2143.01 re: "Cannot Render the ...Art Unsatisfactory for its Intended Purpose."

Accordingly, the Applicants respectfully request the reconsideration and the withdrawal of all of the rejections.

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Claims 9 and 10 stand rejected under 35 USC section 103(a) as being obvious over Chisso in view of Nugent, Jr. et al. The Applicants respectfully traverse these rejections.

Regarding Chisso in view of Nugent, Jr. et al., neither of the references nor any combination of them discloses any oxygenated heterocyclic thermoplastic resin or any powder coating composition, as claimed in instant claim 14 which would result from mixing, extruding and grinding each of the ingredients. Further, Nugent, Jr. et al. fails to teach or suggest any thermoplastic resin comprising groups that react with phosphoric acid, as instantly recited. Still further, the materials of Nugent, Jr. et al. are mastics or liquids and would thus be unsatisfactory as powder coatings and could not render Chisso suitable for that purpose. See the Summary Of Personal Interview With The Examiner, at page 8, above.

The references, even in combination, fail to meet the limitations of the instant claims (MPEP 2143.03). In addition, in the case of claims 14-18, the combination of references fails to provide a reasonable expectation that the result could be a powder coating (MPEP 2143.02).

The Applicants respectfully request the reconsideration and the withdrawal of all of the rejections.

Claims 11-13 and 19 stand rejected under 35 USC section 103(a) as being obvious over Chisso in view of Von Bonin et al. The Applicants respectfully traverse these rejections.

Neither of Chisso and Von Bonin, or any combination of them discloses any oxygenated heterocyclic thermoplastic resin. Accordingly, each of the instantly claimed features cannot be met by this combination and the rejection is improper. MPEP 2143.03.

Further, Chisso fails to disclose or suggest a powder composition which would reasonably be expected to result from mixing, extruding and grinding each

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of the ingredients. See the Summary Of Personal Interview With The Examiner, at page 7, above. Von Bonin suggests no reasonable powder coating embodiment and thus cannot reasonably be expected to repair the deficiencies of Chisso. See the Summary Of Personal Interview With The Examiner, at pages 8-9, above, and MPEP 2143.02.

Still further, Von Bonin fails to disclose thermoplastic resins which contain groups reactive with phosphoric acid, as instantly recited. Finally, Von Bonin discloses no water resistant resin ingredient at all, thus any resin combination with Chisso regarding thermoplastics would be impermissible because it would render Chisso unsuitable for its intended purpose. See the Summary Of Personal Interview With The Examiner, at page 8, above regarding Chisso and Roth et al., and MPEP 2143.01.

The rejections are improper. Accordingly, the Applicants respectfully request the reconsideration and the withdrawal of all of the rejections.

CONCLUSION

Based on the foregoing, the instant claims are believed to be in current condition for allowance. An early and favorable response is earnestly solicited. If the examiner has any questions problems concerning the instant application, (s)he is urged to contact the undersigned at the number given below.

Concurrently herewith, Applicants submit a Supplemental Information Disclosure Statement and requisite fee under 37 C.F.R. 1.17 in the instant application.

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**No fees are believed due. In the event that any fees are found owing,  
please charge deposit account no. 18-1850.**

Respectfully, submitted



Andrew E. C. Merriam  
Attorney for Applicants  
Registration No. 47,268  
Telephone (215) 592-6758

**Rohm and Haas Company  
100 Independence Mall West  
Philadelphia, PA 19106**